

What can the modern generation learn from Ignacy Łukasiewicz?

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Abstract: Ignacy Łukasiewicz is commonly referred to as the founder of the oil industry. Most people associate him with the invention of the kerosene lamp. He was also, however, an accomplished pharmacist, an advocate of Polish independence, social activist, and philanthropist. It is worth recalling that he was the co-founder of the world's first oil mine and distillery. He made a lasting mark on the economic history of the world. Łukasiewicz was not only the inventor of the oil lamp; his achievements were broader. He operated in difficult times and had to overcome many private, political and economic adversities. Yet they did not break his attitude, which was unflinching. He proved that being an innovator and an entrepreneur is not incompatible with maintaining admirable social convictions. What can we, living in the 21st century, learn from Ignacy Łukasiewicz? This article brings to the fore several qualities of his that are well worth noting. It aims to present the values that characterize the person of Ignacy Łukasiewicz – values, the emulation of which, would serve the present generation well.

Keywords: Ignacy Łukasiewicz, entrepreneurship, kerosene lamp, personal qualities

Introduction

Ignacy Łukasiewicz was an indomitable man who transcended the times in which he lived. He had great courage of thought and was able to act independently of accepted and prevailing opinions. His unconventional and unique attitude was exemplified in his extraordinary research focused on seeking solutions that could contribute to improving the lives of future generations. On July 31, 1853, in a hospital in Lviv, Łukasiewicz's lamps, made by the designer/constructor Bratkowski, were used to illuminate the room where the surgeon Zaorski performed an appendectomy on Władysław Cholecki. It is estimated that one lamp gave as much light as 10-15 candles. This illustrates how his achievements had a practical impact on the local community. At the same time, this stance can be a model for today's generation to constantly look for new out-of-the-box solutions that can contribute to improving society - especially today, in an era of increased competition between economies that are looking for sources of competitive advantage. The pursuit of

innovation and the development of new ideas and patents requires tenacity, perseverance and courage. Ignacy Łukasiewicz, despite various adversities and a difficult financial situation, did not give up on his successive goals, which he tried to achieve. These values are timeless and can be a source of inspiration for modern researchers and students who should take the example of Ignacy Łukasiewicz.

The values of Ignacy Łukasiewicz

First of all, Ignacy Łukasiewicz was an **extremely hardworking** man. Born in 1822 in the village of Zaduszniki, he grew up in an impoverished family. As a young man, his family struggled to support itself, and at the age of 8 his father, Joseph, died. The mother of the family was ailing and the oldest brother decided to continue his education. Thus the younger brother — Ignacy — had to start working in a pharmacy in Łańcut at the age of 14. He was raised to be hard-working, conscientious, and consistent. His organizational and entrepreneurial talents were quickly recognized, complemented by a constant hunger for knowledge and a drive to discover new things. Today, people who are impatient in pursuing goals or have trouble defining them should take Ignacy Łukasiewicz's example of tenacious experimentation. He had an extraordinary courage that allowed him to discover new things and constantly acquire skills, which he used for the benefit of the people around him. Such an attitude is especially important today. Young people, through the convenience of computers, are losing the need to discover their passions, including the essential element of a researcher's workshop: that of constantly asking questions and seeking answers to them. Łukasiewicz not only combined these abilities but at the same time remained extremely entrepreneurial and patient. Even in the face of setbacks and difficulties in life, he did not give up on pursuing his goals. He was able to use his knowledge, diligence, persistence, skills and talent, as well as his passion, to conduct his successive projects, which then contributed to the development of the region in which he lived and of society in general. With his diligence, he helped develop a pioneering method of oil production. It was both effective and efficient. As a consequence, Łukasiewicz had visits from numerous American oilmen, hoping to copy his refining methods.

Secondly, Ignacy Łukasiewicz was an example of a man who **worked well in a team**. Together with Jan Zeh, he was able to successfully distil oil. From surviving documents, we can read: "and there was a pharmacist, a good friend of mine, a certain Zeh. I showed him the oil, and we hashed out how to purify it further. We added acids, passed it through an alembic and immediately obtained pure kerosene" (Brzozowski 1974: 47). When creating the actual kerosene lamp, he collaborated with Adam Bratkowski, a Lviv tinsmith. Ignacy Łukasiewicz said: "I try to bring forth light, in the oil lamp, of course. The lamp's reservoir ignites from the inside, bursts and almost burns me. Then they proclaim a new type of illumination: using pinoline and camphine. I can't sleep from envy, I thus go to the famous tinsmith Bratkowski" (Brzozowski 1974: 47). This shows how talent and skills can

be developed in a collaborative environment, which we refer to today as teamwork. This environment is built on proper communication skills and in an atmosphere of mutual trust, being the necessary framework for effectively achieving common goals. Cooperation today is often obscured by rivalry. That is exactly why Ignacy Łukasiewicz's attitude is worthy of imitation. Furthermore, it is through teamwork that we achieve synergy between different outlooks on the one hand and the skills and knowledge that we all possess, on the other. To emulate Łukasiewicz means to be able to use social potential to foster the common good of our community and of future generations.

Thirdly, Ignacy Łukasiewicz had an **innovative approach to his employees**. He was able to create, back in his the time, a unique business model, in which the *individual* was respected. He generously compensated his employees who worked in oil production, and introduced extra allowances for work conducted in difficult conditions; he also recognized efficient work and good results by paying bonuses. He used an incentive system that increased production efficiency and contributed to a better atmosphere among employees who often risked their lives during doing their job. This distinguished him from many other entrepreneurs who did not use such incentives. In 1866, he established the first workers' fraternity fund to exist in the Austrian partition of Poland – this fund was a welfare and insurance system for workers. Its premise was to make it compulsory for each worker to deposit 3 cents of every Rhenish zloty earned into the fund. The accumulated funds were used to cover the cost of medical treatment for ill employees, to provide sick pay for each day of their incapacity, to pay for the funeral expenses of a deceased employee, to pay an invalid's pension and to provide an allowance for widows and orphans. It also introduced an allowance in the event of a fire at home. These measures were innovative and very few employers provided such benefits. These benefits built public confidence and a sense of stability. Łukasiewicz tried to reduce the risk of accidents, so he imposed an absolute ban on alcohol for mine workers. He promoted workplace safety on his own initiative, despite the lack of adequate regulations in this area. These practices over time became common standards — in this respect, too, he transcended the era in which he lived. He left behind a legacy that later generations should expand upon. By Łukasiewicz's example, especially important in our era of robotization and computerization, we can see that the true sources of competitive advantage are knowledge and human capital.

Fourthly, Ignacy Łukasiewicz was an **exemplary economic and national patriot**. He took risks serving the ideals he believed in. He took part in illegal and underground patriotic activities, for which he was imprisoned for two years. In today's age of digitization, patriotism is not as popular, especially among the younger generation. The stress and high pace of everyday life, as well as our ever present consumerism, is now confronted with the uncertainty caused by the war in Ukraine, which began with the Russian invasion in February 2022. This situation has affected the economic and social situation of citizens in most European countries. Regardless of particular challenges, the Poles have shown great solidarity

with the people of Ukraine in these difficult times. We were able to see the needs of others, just as Ignacy Łukasiewicz did, who gave refuge to and financially supported participants of the January Uprising of 1863. He was also involved in politics, as a district councilman of Krosno, and as a deputy to the National Sejm in Lviv. His political activity yielded practical results, as he was able to help improve infrastructure in the Polish regions. He wanted in this way to contribute to the economic development of the Poles. Łukasiewicz also wanted to expand the oil industry in Galicia, so he sought to pass laws favorable to entrepreneurs. Ignacy Łukasiewicz's patriotism had two sides — on the one hand, he worked in favor of his homeland, his Fatherland, and on the other, he fostered the industrial and economic potential of his region. What does patriotism mean for young people living in the 'global village'? How do they define patriotism and what can they learn from Ignacy Łukasiewicz? First of all, it seems that being a patriot means working for the betterment of one's region, one's own country and for the development of its economy. Today, in most cases, this would not mean participating in a revolution or insurrection. It would rather be made up of local activities contributing to the development of one's region and for the benefit of future generations. Such activity is within everyone's capability. It might also consist of promoting an attitude of selflessness and cultivating diligence among others. Most long-term effects on society stem from grassroots work, which is a form of patriotism. Such work can be started anywhere — at home, at work, at school, at the university, and in the local community where one lives. Everyone should define for themselves a way of realizing patriotism that will not only make the world a better place now but also for future generations. It doesn't have to be in the form of a discovery or invention that will revolutionize humanity, industry or the economy. It is important to keep an open heart to human injustice and poverty, an open mind to new solutions and ideas, and to cultivate a personality that is ready not only to go against the grain but also to derive joy and satisfaction from doing good. Future generations must remain hungry for knowledge and passionate about their development.

Fifthly, and finally, Ignacy Łukasiewicz was a **social activist, philanthropist and a promoter of sustainable development**. He looked at problems from a national (Polish) perspective even though he lived in the Austrian partition of Poland. He was aware of the issues and social needs of his neighbors. When he became a man of increasing wealth, his empathy did not change. He was a true philanthropist in the sense that he never expected anything in return. This is admirable especially from today's perspective, in a world where we rather live with our self-interest in mind. Modern philanthropy often takes the form of donating whatever wealth is 'extra' and is then used for publicity. Łukasiewicz cared deeply about increasing the accessibility of education. He founded a school in Chorkówka in 1865, and a lace school for girls in 1876. The latter school was run by his wife Honorata Łukasiewicz. Together with the entrepreneur Karol Klobassa, he also financed the establishment of schools in Bóbrka, Zręcin, and Żeglce. Łukasiewicz himself attended a general secondary school in Rzeszów, which today houses that city's

High School No. 1. The more schools he helped establish, the more opportunities he created for future generations. He provided interest-free loans to peasants, as well as financial assistance and patronage to the children of peasants who wanted to attend school. Apart from establishing schools, he employed teachers and paid their salaries. He funded scholarships for the talented to pursue education at universities in the US and Canada. This was his way of investing in the intellectual development of the local population. He carried out his philanthropic activities without much publicity. On top of that, together with Karol Klobassa, he funded a neo-Gothic parish church in Zręcin, which serves today as the Parish of St. Bishop Stanisław the Martyr in Zręcin (church in Zręcin).⁶ He contributed to the creation of a chapel in a manor in Chorkówka and to the conservation work of the parish church in Biecz in 1871. He also allocated funds for other churches, including Orthodox churches in the Przemyśl diocese, and provided free kerosene for lighting. He was also instrumental in the establishment of the Museum of Oil and Gas Industries in Bóbrka, as he founded an obelisk in 1879 with the founding date of the Bóbrka mine, which to this day remains the centerpiece of the museum. This demonstrates his ability to realize projects and fund initiatives that continue working even after his death and that can remind us of his achievements and teach new generations how to live by his example for the common good of society.

Ignacy Łukasiewicz as an entrepreneur

In addition to his philanthropic activities, Ignacy Łukasiewicz was able to invest in the foundations of economic development. He was well aware that the most important thing is infrastructure, which contributes to economic development, trade, new jobs and the cultivation of a region's overall prosperity. That is why he financed the creation of roads and bridges — to increase mobility and increase the competitive advantage of one region over another. Such infrastructure also has strategic significance, because it allows for the development of further economic sectors. Polish lands were historically less developed compared to Western Europe. His example of selflessness and charity gave him the nickname *Father Ignacy*. He was remembered as a father figure even after his death: “He was called Father by everyone in the district, in the country — under the wings of the late Ignatius they fled, you would not find a single man who left him without obtaining from him consolation and wise counsel in times of difficulty, in poverty generous material assistance, in sickness medicine, in misery a shelter and rare hospitality. Having acquired knowledge and wealth with toil and labor, he knew their value; it is no wonder, therefore, that he used his wealth where and how it should be used” (Franaszek, Grata 2021: 94). The best evidence of his generosity was that Pope Pius IX granted him the dignity of papal chamberlain in 1873 and the right to wear

6 The founders of the church were: Karol Klobassa-Zrenicki, contributing 50 thousand Rhine zloty; Ignacy Łukasiewicz, contributing 10 thousand Rhine zloty; and the parishioners, the value of whose work was estimated at 40 thousand Rhine zloty.

the insignia of the Order of St. Gregory (patron saint of schools [?]). The way he helped others is worthy of emulation for today's and future generations. He had future generations in mind also when funding the planting of fruit trees on the roads from Chorkówka to Bóbrka and Zręcin in 1879 so that travelers could treat themselves on their journeys. His attitude can be summed up by the phrase: 'grassroots work'.

It should be remembered that Łukasiewicz established the world's first oil mine, of which he was also the manager. It is impressive that his innovation did not end with that discovery, but that he strived to constantly modernize the mine and the refinery. He understood perfectly that continuous development was necessary. This attitude would now be referred to as the practice of continuous improvement, searching for new solutions, optimizing production and constantly improving efficiency. These strategies can be found in the business models of the biggest companies in the world. His passion for exploring the world was infectious. He realized what potential oil had for the betterment of future generations. He saw the development of the oil industry as an opportunity to start more companies, which he urged others to do. The amazing thing is that he was not afraid of competition. On the contrary, he urged others to create their businesses. He believed that this would bring more cooperation, and so he cultivated entrepreneurship. He inspired others with his passion for innovation. He founded the *National Oil Society* in 1877 [Krajowe Towarzystwo Naftowe] which first operated under the name *The Society of Care and Development of the Oil and Mining Industries in Galicia* [Towarzystwa dla Opieki i Rozwoju Przemysłu i Górnictwa Naftowego w Galicji]. This organization supported the development of mining in Polish areas and was also active in the period between Poland's regaining independence in 1918 and the outbreak of World War II in 1939. It led to the passage, after his death, of the Oil Act. Łukasiewicz's attitude was filled with creative and unconventional ideas on how to approach problems. Together with admirable perseverance and diligence, he is not only a model worthy of emulation but also a signpost for achieving success. Modern-day employers are searching for people with Łukasiewicz's qualities, even if they are not aware of it. In times of often unfair competition one should keep one's integrity when pursuing one's goals – as did Łukasiewicz. He showed us how to think independently and how to overcome barriers (barriers that are often only in one's mind). He saw what no one else saw. He took risks where others retreated. He walked paths that others had not walked before, and as history has shown, others followed his footsteps later. He was able to recognize trends earlier than others. He proved that innovation is a multidimensional process and cannot be limited to working in a lab, but must also include organizational skills, management, business strategies, communication, cooperation and teamwork, as well as solutions in the legislative sphere.

Summary

From Ignacy Łukasiewicz we can learn detachment from wealth and selfish profit. His life has shown that the greatest value is not to focus on oneself but on others. That is the reason why, even long after his death, he is remembered as *Father Ignacy*. Today's generation is focused on profit and consumer goods. It can learn a great deal from Ignacy Łukasiewicz. This humble Pole has left a mark in the hearts and minds of generations. His work made a lasting impact on the economic history of the global energy sector. Despite the noise and hustle of everyday life, it is worth stopping and finding time to reflect on whether the decisions we are making are adequate to our abilities and skills. Let's have the courage to look for what we don't see every day, let's go beyond the accepted norms and expectations for the betterment of present and future generations. Let us remember that the values that characterized Ignacy Łukasiewicz in his personal and professional life, such as industriousness, the ability to work in a team, innovative outlook on the environment, patriotism and the spreading of the idea of sustainable development, are universal values worth recommending to society at large, and especially to the younger generation.

Bibliography

1. Brzozowski S., *Ignacy Łukasiewicz*, Warszawa: Interpress, 1974.
2. Franaszek P., Grata P., Kozicka-Kołaczkowska A., Ruszel M., Zamoyski G., *Ignacy Łukasiewicz*, Warsaw: Państwowy Instytut Wydawniczy, 2021.
3. Church in Zręcin, <http://zrecin.przemyska.pl/o-parafii/> [access: 22.07.2018].
4. Patron of the school, <http://www.gim2jaslo.edu.pl/patron/zyciorys4.php>.

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